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GUIDELINES FOR ETHICAL CONDUCT IN THE CARE AND USE OF ANIMALS¹

AMERICAN PSYCHOLOGICAL ASSOCIATION

Psychology encompasses a broad range of areas of research and applied endeavors. Important parts of these endeavors are teaching and research on the behavior of nonhuman animals, which contribute to the understanding of basic principles underlying behavior and to advancing the welfare of both human and nonhuman animals. Clearly, psychologists should conduct their teaching and research in a manner consonant with relevant laws and regulations. In addition, the conscience of the individual psychologist critically contributes to establishing and implementing the humane use of animals. Ethical concerns mandate that psychologists should weigh the probable costs and benefits of procedures involving animals.

The following Guidelines were developed by the American Psychological Association for use by psychologists working with nonhuman animals (vertebrates). They are based upon and are in conformity with Principle 10, "Care and Use of Animals" of the *Ethical Principles of Psychologists* of APA:

An investigator of animal behavior strives to advance understanding of basic behavioral principles and/or to contribute to the improvement of human health and welfare. In seeking these ends, the investigator ensures the welfare of animals and treats them humanely. Laws and regulations notwithstanding, an animal's immediate protection depends upon the scientist's own conscience.

These Guidelines are incorporated by reference in the *Ethical Principles of Psychologists* of APA. Individuals publishing in APA journals shall attest to the fact that animal research was conducted in accordance with these Guidelines.²

I. General

- A. In the ordinary course of events, the acquisition, care, housing, use, and

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² Editorial note: JEAB is not an APA journal; indeed, it was founded when APA journals had proved to be inadequate forums for behavior-analytic research. However, JEAB has traditionally supported APA policy on ethical issues, including those that address the care and use of animals. JEAB also had adopted APA style and format for research reports. P.N.H.

disposition of animals should be in compliance with relevant federal, state, local, and institutional laws and regulations and with international conventions to which the United States is a party. In accordance with Principle 3(d) of the *Ethical Principles of Psychologists* of APA, when federal, state, provincial, organizational, or institutional laws, regulations, or practices are in conflict with Association Guidelines, psychologists should make known their commitment to Association Guidelines and, whenever possible, work toward resolution of the conflict.

- B. Psychologists and students working with animals should be familiar with these Guidelines, which should be conspicuously posted in every laboratory, teaching facility, or other setting in which animals are maintained and used by psychologists and their students.
 - C. Violations of these Guidelines should be reported to the facility supervisor whose name is appended at the end of this document. If not resolved at the local level, allegations of violations of these Guidelines should be referred to the APA Committee on Ethics, which is empowered to impose sanctions. No psychologists should take action of any kind against individuals making, in good faith, a report of violation of these Guidelines.
 - D. Individuals with questions concerning these Guidelines should consult with the Committee on Animal Research and Experimentation.
 - E. Psychologists are strongly encouraged to become familiar with the ethical principles of animal research. To facilitate this, the Committee on Animal Research and Experimentation will maintain a list of appropriate references.
- II. *Personnel*
- A. A supervisor, experienced in the care and use of laboratory animals, should closely monitor the health, comfort, and humane treatment of

all animals within the particular facility.

- B. Psychologists should ensure that personnel involved in their research with animals be familiar with these Guidelines.
 - C. It is the responsibility of the supervisor of the facility to ensure that records of the accession, utilization, and disposition of animals are maintained.
 - D. A veterinarian should be available for consultation regarding: housing, nutrition, animal-care procedures, health, and medical attention. The veterinarian should conduct inspections of the facility at least twice a year.
 - E. Psychologists should ensure that all individuals who use animals under their supervision receive explicit instruction in experimental methods and in the care, maintenance, and handling of the species being studied. Responsibilities and activities of all individuals dealing with animals should be consistent with their respective competencies, training and experience in either the laboratory or the field setting.
 - F. It is the responsibility of the psychologist to ensure that appropriate records are kept of procedures with animals.
 - G. It is the responsibility of the psychologist to be cognizant of all federal, state, local, and institutional laws and regulations pertaining to the acquisition, care, use, and disposal of animals. Psychologists should also be fully familiar with the *NIH Guide for the Care and Use of Laboratory Animals*.
- III. *Facilities*
- A. The facilities housing animals should be designed to conform to specifications in the *NIH Guide for the Care and Use of Laboratory Animals*.
 - B. Psychologists are encouraged to work toward upgrading the facilities in which their animals are housed.
 - C. Procedures carried out on animals

are to be reviewed by a local institutional animal care and use committee to ensure that the procedures are appropriate and humane. The committee should have representation from within the institution and from the local community. If no representative from the local community is willing to serve, there should be at least one representative on the committee from a non-science department. In the event that it is not possible to constitute an appropriate local institutional animal care and use committee, psychologists should submit their proposals to the corresponding committee of a cooperative institution.

IV. *Acquisition of Animals*

- A. When appropriate, animals intended for use in the laboratory should be bred for that purpose.
- B. Animals not bred in the psychologist's facility are to be acquired lawfully. The U.S. Department of Agriculture (USDA) may be consulted for information regarding suppliers.
- C. Psychologists should make every effort to ensure that those responsible for transporting the animals to the facility provide adequate food, water, ventilation, and space, and impose no unnecessary stress upon the animals.
- D. Animals taken from the wild should be trapped in a humane manner.
- E. Endangered species or taxa should be utilized only with full attention to required permits and ethical concerns. Information can be obtained from the Office of Endangered Species, U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. 20240. Similar caution should be used in work with threatened species or taxa.

V. *Care and Housing of Animals*

Responsibility for the conditions under which animals are kept, both within and outside of the context of active experimentation or teaching, rests jointly upon the psychologist and those individuals appointed by the institution to administer animal care. Animals should be

provided with humane care and healthful conditions during their stay in the facility. Psychologists are encouraged to consider enriching the environments of their laboratory animals, where appropriate.

VI. *Justification of the Research*

- A. Research should be undertaken with a clear scientific purpose. There should be a reasonable expectation that the research will a) increase knowledge of the processes underlying the evolution, development, maintenance, alteration, control, or biological significance of behavior, b) increase understanding of the species under study, or c) provide results that benefit the health or welfare of humans or other animals.
- B. The scientific purpose of the research should be of sufficient potential significance as to outweigh any harm or distress to the animals used. In this regard, psychologists should act on the assumption that procedures that would produce pain in humans will also do so in other animals.
- C. The psychologist should always consider the possibility of using alternatives to animals in research and should be familiar with the appropriate literature.
- D. Research on animals may not be conducted until the protocol has been reviewed by the institutional animal care and use committee to ensure that the procedures are appropriate and humane.
- E. The psychologist should monitor the research and the animals' welfare throughout the course of an investigation to ensure continued justification for the research.

VII. *Experimental Design*

Humane considerations should constitute one of the major sets of factors that enter into the design of research. Two particularly relevant considerations should be noted:

1. The species chosen for study should be well-suited to answer the question(s) posed. When the

research paradigm permits a choice among species, the psychologist should employ that species which appears likely to suffer least.

2. The number of animals utilized in a study should be sufficient to provide a clear answer to the question(s) posed. Care should be exercised to use the minimum number of animals consistent with sound experimental design, especially where the procedures might cause pain or discomfort to the animals.

VIII. *Experimental Procedures*

Humane consideration for the well-being of the animal should be incorporated into the design and conduct of all procedures involving animals. *The conduct of all procedures is governed by Guideline VI.*

- A. Procedures which involve no pain or distress to the animal, or in which the animal is anesthetized and insensitive to pain throughout the procedure and is euthanized before regaining consciousness, are generally acceptable.
- B. Procedures involving more than momentary or slight pain not relieved by medication or other acceptable methods, should be undertaken only when the objectives of the research cannot be achieved by other methods.
- C. Procedures involving severe distress or pain that is not alleviated require strong justification. An animal observed to be in a state of severe distress or chronic pain that cannot be alleviated and that is not essential to the purposes of the research, should be euthanized immediately.
- D. When aversive or appetitive procedures appear to be equivalent for the purposes of the research, then appetitive procedures should be used. When using aversive stimuli, psychologists should adjust the parameters of stimulation to levels that appear minimal, though compatible with the aims of the research. Psychologists are encouraged to test

painful stimuli on themselves whenever reasonable. Whenever consistent with the goals of the research, consideration should be given to providing the animal with control of painful stimulation.

- E. Procedures involving extensive food or water deprivation should be used only when minimal deprivation procedures are inappropriate to the design and purpose of the research.
- F. Prolonged physical restraint should be used only if less stressful procedures are inadequate to the purposes of the study. Convenience to the psychologist is not a justification for prolonged restraint.
- G. Procedures that entail extreme environmental conditions, such as high or low temperatures, high humidity, modified atmospheric pressure, etc. should be undertaken only with particularly strong justification.
- H. Studies entailing experimentally-induced prey killing or intensive aggressive interactions among animals should be fully justified and conducted in a manner that minimizes the extent and duration of pain.
- I. Procedures entailing the deliberate infliction of trauma should be restricted and used only with very strong justification. Whenever possible, without defeating the goals of the research, animals used in such research should be anesthetized.
- J. Procedures involving the use of paralytic agents without reduction in pain sensation require particular prudence and humane concern. Utilization of muscle relaxants or paralytics alone during surgery, without general anesthesia, is unacceptable, and shall not be used.
- K. Surgical procedures, because of their intrusive nature, require close supervision and attention to humane considerations by the psychologist.
 1. All surgical procedures and anesthetization should be conducted under the direct supervision of a scientist who is competent in the use of the procedure.

2. If the surgical procedure is likely to cause greater discomfort than that attending anesthetization, and unless there is specific justification for acting otherwise, animals should be maintained under anesthesia until the procedure is ended.
3. Sound post-operative monitoring and care should be provided to minimize discomfort, and to prevent infection and other untoward consequences of the procedure.
4. As a general rule, animals should not be subjected to successive surgical procedures unless these are required by the nature of the research, the nature of the surgery, or for the well-being of the animal. However, there may be occasions when it is preferable to carry out more than one procedure on a few animals rather than to carry out a single procedure on many animals. For instance, there may be experimental protocols where it would be appropriate to carry out acute terminal surgical procedures on animals scheduled for euthanasia as part of another protocol rather than to utilize additional animals.

IX. *Field Research*

- A. Psychologists conducting field research should disturb their populations as little as possible. Every effort should be made to minimize potential harmful effects of the study on the population and on other plant and animal species in the area.
- B. Research conducted in populated areas should be done with respect for the property and privacy of the inhabitants of the area.
- C. Particular justification is required for the study of endangered species. Such research should not be conducted unless all requisite permits are obtained.

X. *Educational Use of Animals*

- A. For educational purposes, as for research purposes, consideration

should always be given to the possibility of using non-animal alternatives. When animals are used solely for educational rather than research purposes, the consideration of possible benefits accruing from their use vs. the cost in terms of animal distress should take into account the fact that some procedures which can be justified for research purposes cannot be justified for educational purposes. Similarly, certain procedures, appropriate in advanced courses, may not be appropriate in introductory courses.

- B. Classroom demonstrations involving animals should be used only when instructional objectives cannot effectively be achieved through the use of videotapes, films or other alternatives. Careful consideration should be given to the question of whether the type of demonstration is warranted by the anticipated instructional gains.
- C. Animals should be used for educational purposes only after review by a departmental committee or by the local institutional animal care and use committee.
- D. Psychologists are encouraged to include instruction and discussion of the ethics and values of animal research in courses, both introductory and advanced, which involve or discuss the use of animals.
- E. Student projects involving pain or distress to animals should be undertaken judiciously and only when the training objectives cannot be achieved in any other way.
- F. Demonstrations of scientific knowledge in such contexts as exhibits, conferences, or seminars do not justify the use of painful procedures or surgical interventions. Audio-visual alternatives should be considered.

XI. *Disposition of Animals*

- A. When the use of an animal is no longer required by an experimental protocol or procedure, alternatives to euthanasia should be considered.
 1. Animals may be distributed to colleagues who can utilize them.

Care should be taken that such an action does not expose the animal to excessive surgical or other invasive or painful procedures. The psychologist transferring animals should be assured that the proposed use by the recipient colleague has the approval of, or will be evaluated by, the appropriate institutional animal care and use committee and that humane treatment will be continued.

2. It may sometimes be feasible to return wild-trapped animals to the field. This should be done only when there is reasonable assurance that such release will not detrimentally affect the fauna and environment of the area and when the ability of the animal to survive in nature is not impaired. Unless conservation efforts dictate otherwise, release should normally occur within the same area from which animals were originally trapped. Animals reared in the laboratory generally should not be released

because, in most cases, they cannot survive or they may survive but disrupt the natural ecology.

- B. When euthanasia appears to be the appropriate alternative, either as a requirement of the research, or because it constitutes the most humane form of disposition of an animal at the conclusion of the research:

1. Euthanasia shall be accomplished in a humane manner, appropriate for the species, under anesthesia, or in such a way as to ensure immediate death, and in accordance with procedures approved by the institutional animal care and use committee.
2. No animal shall be discarded until its death is verified.
3. Disposal of euthanized animals should be accomplished in a manner that is in accord with all relevant legislation, consistent with health, environmental, and aesthetic concerns, and approved by the institutional animal care and use committee.